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IP AUTHORITY, LLC RAMRAJ SOUNDARARAJAN 4821A Eisenhower Ave Alexandria, VA 22304			EXAMINER GORTAYO, DANGELINO N	
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/709,416  
Filing Date: May 04, 2004  
Appellant(s): TENG ET AL.

Ramraj Soundararajan  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed December 19, 2007 appealing from the Office action mailed June 19, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,529,905 B1	Bray	3-2003
6,850,938 B1	Sadjadi	2-2005

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**(10) Response to Argument**

With respect to the outstanding 35 U.S.C. 102(b) rejections relating to all the independent claims, and the remaining claims which depend therefrom, Applicants argue that Bray et al. (US Patent 6,529,905) does not teach “prefix encoded nodes in a hierarchically structured document” as disclosed in claim 1 because the nodes disclosed in Bray are not prefix encoded.

The examiner respectfully disagrees with appellant’s arguments. As seen in Figure 3 of Bray and in the description of the drawing, a hierarchically structured document is disclosed containing nodes. The hierarchically structured document is further described in column 5 lines 4-32, wherein the document is composed of nodes that can have only one parent but may have multiple children. The examiner interprets

the limitation “prefix encoded nodes” to mean a node having information that identifies its parent, and the arguments set forth are based on this interpretation. Further described in column 5 lines 19-32 is that the nodes and subnodes are established using a document type definition (DTD) specified in an XML specification. As is commonly known in the art, a DTD is used for the expression of a schema, or the structure of a document. Column 5 lines 19-28 of Bray says:

“Thus, the delineation between what is a node and what is a subnode is predetermined as part of developing the DTD. A node is a grouping of elements that are edited, viewed, and modified together. Thus, editing a node will cause an editor to be called up for viewing and editing one or more elements in the node. Put in more generic terms, a node is a predefined abstraction/grouping of elements that are worked and used together.”

This passage is interpreted by the examiner to mean that a node within a document contains information on not only its children node(s), but also information on its parent node. The argument put forth by the applicant starting on page 7, that Bray teaches a unique identifier is in error, as nowhere in the office action does the examiner put forth that the nodes are considered unique. In addition, nowhere in the claims of the application is it indicated that the node identifier is unique. The nodes of Bray are identified by the hierarchy path information, based on its parent nodes. Therefore, Bray teaches prefix encoded nodes in a hierarchically structured document as interpreted by the examiner.

As to the argument that Bray does not teach implicitly deriving, from an explicit lock request, a set of locks for said determined ancestor nodes as disclosed in claim 1, Examiner respectfully disagrees. Bray teaches that a node contains information to identify the parent of a node, as indicated in Figure 6 of Bray, wherein a request to lock

a node leads to a step that checks if a lock of any kind was placed on the parent. A reading of the claims, as interpreted by the Examiner, is that an explicit lock request is made to a node, and that it is determined implicitly whether the parents of the node contain a lock. As stated in column 5 lines 41-44 of Bray:

“It should be noted that lock checking 22 must be performed as an atomic operation, meaning that, once started, lock checking must be completed prior to the locking manager 12 beginning another action.”

As commonly known in the art, an atomic operation is a set of operations that can be combined so that they appear to the system to be a single operation. In the case of Bray, the request for a lock made by a client to a node in a document contains a lock checking operation within it, seen by the system to be one operation. That means that the making a lock request also means making a lock checking operation. This is further described in column 7 lines 13-28, wherein once a lock request is made, the parent of a node is checked to see if already contains a lock. The step of lock request, combined with a lock check, is interpreted to mean that the locks of a parent node are checked once a lock request is made, before another action can be made by the system. Therefore, Bray teaches implicitly deriving, from an explicit lock request, a set of locks for said determined ancestor nodes.

As to the argument that Bray does not teach the limitation “comparing said derived set of implicit locks with existing lock modes for said determined ancestor nodes” based on the supposition that Bray fails to teach a derived set of implicit locks for the ancestor nodes as disclosed in claim 1, Examiner respectfully disagrees based on the arguments put forth above regarding Bray teaching a derived set of implicit locks

for the ancestor nodes. Additionally, column 7 lines 13-50 of Bray teach the steps outlined in Figure 6, wherein the lock request on a node involves checking to see if a parent node contains a lock. Bray also teaches a lock record containing a vector of element IDs containing locks, disclosed in column 5 lines 48-61, which is used to check the locks placed on nodes of a hierarchically structured document.

As to the argument that Bray does not teach "deriving from said explicit lock release, a set of implicit lock modes for said determined ancestor nodes" as disclosed in claim 20, Examiner respectfully disagrees. As disclosed above regarding implicitly deriving a set of locks for ancestor nodes from explicit lock requests, Bray teaches that a lock request contains a lock check as an atomic operation that checks if a lock exists on the parent node.

The argument set forth for claim 1 above are applied to independent claims 12, 19, 20, and 21, as the arguments set forth are similarly utilized.

With respect to the outstanding 35 U.S.C. 103(a) rejections relating to all the independent claims, and the remaining claims which depend therefrom, Applicants argue that there is no realistic motivation to combine Bray et al. (US Patent 6,529,905) and Sadjadi (US Patent 6,850,938) for the rejection of claims 6-8 and 16-18.

The examiner respectfully disagrees with appellant's arguments. The disclosed limitation of Sadjadi, that of a lock manager using different lock types to provide locks to object, as disclosed in column 7 lines 4-33. Particularly, the following passage discloses the three different lock modes of Sadjadi:

“The lock data structure 144 includes a field 148 indicating a lock type. For example, a first value, S, indicates a shared lock type, a second value, E, indicates an exclusive lock type, and a third value, O, indicates an optimistic lock type. "S", "E", and "O" are merely exemplary labels that can be used to indicate the various lock types.”

As interpreted by the examiner, the shared lock mode of the instant claim is interpreted to be the shared lock mode of Sadjadi, the exclusive lock mode of the instant claim is interpreted to be the exclusive mode of Sadjadi, and the update lock mode of the instant claim is the optimistic lock mode of Sadjadi. The lock modes that Sadjadi discloses is combined with the lock system of Bray to teach the limitations of claim 4. Particularly, the lock manager of Bray, disclosed in Figure 1 reference 12 and column 5 lines 33-61, teach that different lock types can be placed on the document by the locking manager, explicitly stated in column 5 line 34-36 "Requests for the various types of locks come from a distributed client based on user actions", and the cited passages of Sadjadi is used to more specifically discuss the different types of lock modes.

As disclosed in the above rejection, the motivation for adding the limitation of Sadjadi to the locking system of Bray can be found in column 3 lines 52-58, wherein new optimistic locking techniques are added to the locking system of Bray to reduce the size of database objects and transaction logs. The argument that it complicates the system of Bray is believed to be in error, as it is shown in Bray that different lock modes, specified by client actions, can be made. The limitation of the specific modes disclosed by Sadjadi provides new optimistic locking techniques to the locking system of Bray that increases the throughput when making locks to documents. The argument made by the

applicant in page 16 paragraph 2 of the Appeal Brief is that Bray states that no locking mechanism is needed for simply viewing a document. Yet the claims do not specifically state that the locks placed on nodes are specifically for viewing a document in read-only mode. Access of an object is not limited to viewing. Sadjadi additionally does not specify that a “share” lock is specific to concurrent access to a document in a read-only mode. By adding the limitation cited in Sadjadi, including the shared lock mode, to the locking system of Bray, with the motivation of lessening the burden of updating locks by utilizing specific lock modes, all the limitations of claims 4-11 and 15-18 are disclosed by the cited references.

In addition, the argument that the intention locks is not disclosed is believed to be in error. As interpreted by the examiner, the intention locks of the claims are locks that are used to quickly determine if specific locks have been applied to nodes by other transactions, and that concurrent access is provided if lock modes are the same. The optimistic locks disclosed by Sadjadi teach that optimistic locks work if two lock modes are compatible with each other and are not in conflict, as described in column 2 lines 42-67 and column 4 lines 28-42. Particularly, a lock request is made to a lock manager to change the lock mode from optimistic to exclusive in order to access a particular object. As outlined, Bray in view of Sadjadi teaches all the limitations of claim 4-11 and 15-18.

Conclusion:

It is respectfully submitted that the reference cited discloses the claimed database server to detect execution of database triggers for updating status flags in said web page cache table. In light of the forgoing arguments, the examiner respectfully requests the honorable board of Appeals and Interferences to sustain the rejection.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

/Dangelino Gortayo/

Dangelino Gortayo, Assistant Examiner, AU 2168

May 21, 2007

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Application/Control Number: 10/709,416  
Art Unit: 2100

Page 10